

ABSTRACT OF THE DISCLOSURE

In a heterogeneous data network including both wired and wireless/lossy links, a transport protocol method implemented at the wireless host is fully compatible with existing wired networks and wireless gateways, and requires no modification to transport protocols at existing wired hosts. The wireless host calculates a temperament parameter [100] characterizing the error-proneness of the data connection and uses this parameter to determine whether error-induced losses or congestion-losses dominate the data connection [110]. If congestion-losses dominate the data connection, then the host uses a standard technique for acknowledging data packets [130]. If, on the other hand, error-induced losses dominate the connection, the host uses a modified technique for acknowledging data packets [120]. According to this modified technique, the wireless host sends a plurality of non-duplicate acknowledgements of a single packet whenever a packet is received after an out-of-order packet is received. By acknowledging distinct fragments of the packet, rather than identical (i.e., duplicate) acknowledgments of the packet, the acknowledgments have the effect of accelerating recovery of maximal window size at the wired host and increasing data throughput.